



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,368	07/11/2001	William P. Tanguay	99545 (4254-15)	9563

26753 7590 03/17/2003

ANDRUS, SCEALES, STARKE & SAWALL, LLP  
100 EAST WISCONSIN AVENUE, SUITE 1100  
MILWAUKEE, WI 53202

EXAMINER

POLK, SHARON A

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 03/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/903,368

Applicant(s)

TANGUAY, WILLIAM P.

Examiner

Sharon Polk

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-11, 13-18 is/are rejected.
- 7) ☒ Claim(s) 4 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, filed January 7, 2003, with respect to claims 1-3 and 9-11 have been fully considered and are not persuasive.

With respect to claims 1, Applicant argues elements that are not recited in the claims. In particular, Applicant argues that the present application allows the user to select the length of the repeating cycle separate from the percent range selected by the duty cycle, and further that the user is able to control not only the activation percentage by the duty cycle dial, but also the duration of each cycle through the time base dial (5:24-29). Applicant further argues that the length of the shared period cannot be adjusted by the user (6:5). These features are simply not positively recited. The Applicant admits Payne et al. teaches the repeating cycle is set to one second. Thus, the claim as it stands is met by the Payne et al. Per the claim, no variation is required. Further, since the repeating cycle is one second, Payne et al. also meets the limitations pertaining to the duty cycle dial.

With regard to Rulseh, the examiner maintains that Rulseh teaches non-linear timing, and provides a motivation for using non-linear timing (1:46-51).

With respect to claim 9, Applicant again relies on arguments as noted in claim 1. Thus, the examiner also relies on the arguments above to also traverse Applicant's arguments. The examiner notes that the added limitation of "to set the duration of the repeating cycle" between a maximum setting and a minimum setting, is also met by

Art Unit: 2836

Payne et al. because, as admitted the cycle is set to 1, thus it reasonably follows that a maximum setting can be greater than 1 minimum setting can be less than 1.

With regard to claims 5-8, and 13-16, the Applicant did not specifically address each claim, other than indicating they should be allowable due to the fact that claims 1 and 9 are believed to be allowable. Therefore, the pending respective rejections still stand. Additionally, the Examiner notes that applicant has failed to seasonably traverse each and every official notice taken in the last office action mailed on October 7, 2002. In accordance with the MPEP, if applicant does not seasonably traverse the well-known statement during examination, then the object of the well-known statement is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the next reply after the Office action in which the well-known statement was originally made, MPEP§ 2144.03.

Applicant's arguments with respect to claims 17 and 18 have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments, see p. 7, ll. 11-22, p. 9, ll. 24-p. 10, ll. 2 filed January 7, 2003, with respect to claims 4 and 12 have been fully considered and are persuasive. The rejection of claims 4 and 12 has been withdrawn. Additionally, the 35 USC 112 rejection with respect to claims 7, 15, and 18 has been withdrawn.

Art Unit: 2836

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-6, 8-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Payne et al., US 4,227,062 in view of Rulseh, US 3,992,960.**

**With regard to claims 1, and 9 Payne et al. teach:**

a timer for controlling the activation of a load (10) during repeating cycles, the timer including:

a control unit (72) having an internal timer (148);

a relay unit connected between the control unit and the load, wherein the control unit activates the relay unit to supply power to the load (col. 10, lines 3-9);

a time base dial (34) coupled to the control unit, the time base dial movable between a plurality of discrete time base settings to set the duration of the repeating cycle in the control unit, and

a duty cycle dial (36) coupled to the control unit (fig. 5), the duty cycle dial movable between a plurality of discrete duty cycle settings to set the percentage of actuation time of the load during each repeating cycle in the control unit (col. 6, lines 49-52).

**Payne et al. teach the claimed invention except for the time base settings increase non-linearly from a minimum setting to a maximum setting. However, Rulseh**

Art Unit: 2836

**teaches** this feature (fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Payne et al. with the teaching of Rulseh for the purpose of providing a manual preset timer having a high constant speed timing range for short accurate timings, a low constant speed timing range for longer timings and an intermediate variable speed timing range connecting the two constant speed timing ranges (col. 1, lines 46-51).

With regard **to claims 2, and 10**, Payne et al. teach that duty cycles increase linearly (col. 7, lines 1-6).

With regard **to claims 3, and 11**, Payne et al. teach the claimed invention except for the duty cycle settings increase non-linearly from a minimum setting to a maximum setting. However, Rulseh teaches non-linear timing (fig. 1).

With regard **to claims 5, and 13**, adding the limitation of the increase in value of the duty cycle, Payne et al. teach this feature (fig. 3).

With regard **to claims 6, and 14** official notice is taken that time setting markers can vary in range. As such, it is a matter of design choice based on what is being timed.

With regard **to claims 8, and 16**, adding the limitation of the increase in value of the time base, Payne et al. teach this feature (4a-4e).

**Claims 7, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Payne et al. and Rulseh, as applied to claims 1, and 9 and further in view of Scalf, US 4,430,540.**

Art Unit: 2836

With regard to **claims 7, and 15**, neither Payne et al. nor Rulseh teach the claimed "time base dial." **Scalf teaches** this feature (abstract, fig. 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Payne et al. with the teachings of Scalf, for the purpose of providing an electronic which is economically competitive with electromechanical devices such as time motors while performing comparable or improved functions (col. 1, lines 60-64).

With regard to the 32 discrete settings, official notice is taken that the number of setting is a matter of design choice, as shown in Scalf's figures 2 and 4 for the purpose of providing a visual display of actual remaining time.

**Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Payne et al., in view of Rulseh, and Schuder et al., US 4, 022,075.**

**With regard to claim 17, Payne et al. teach:**

a timer for controlling the activation of a load (10) during repeating cycles, the timer including:

a control unit (72) having an internal timer (148);

a relay unit connected between the control unit and the load, wherein the control unit activates the relay unit to supply power to the load (col. 10, lines 3-9);

a time base dial (34) coupled to the control unit, the time base dial movable between a plurality of discrete time base settings to set the duration of the repeating cycle in the control unit. , and

**Payne et al. teach the claimed invention except for** the time base settings increase non-linearly from a minimum setting to a maximum setting, and the time base settings increase exponentially from a minimum to a maximum setting.

However, **Rulseh teaches** non-linear timing (fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Payne et al. with the teaching of Rulseh for the purpose of providing a manual preset timer having a high constant speed timing range for short accurate timings, a low constant speed timing range for longer timings and an intermediate variable speed timing range connecting the two constant speed timing ranges (col. 1, lines 46-51).

**Schuder et al. teach** exponential increase of a time base dial (e.g. fig. 3). A skilled artisan would be motivated to modify Payne et al. as modified by Rulseh at the time of the invention for the purpose of providing an interval timer which provides a relatively large number of settings between two extreme time intervals, with the capability of accurately setting minutes on one end of a scale and hours at the other end (1:44-50).

**Claim 18, is rejected under 35 U.S.C. 103(a) as being unpatentable over Payne et al. as modified by Rulseh, and Schuder et al. as applied to claim 17 above, and further in view of Scalf, US 4,430,540.**

With regard to **claim 18**, neither Payne et al. nor Rulseh, nor Schuder et al. teach the claimed "time base dial." **Scalf teaches** this feature (abstract, fig. 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify



Art Unit: 2836

Payne et al. with the teachings of Scalf, for the purpose of providing an electronic which is economically competitive with electromechanical devices such as time motors while performing comparable or improved functions (col. 1, lines 60-64).

With regard to the 32 discrete settings, official notice is taken that the number of setting is a matter of design choice, as shown in Scalf's figures 2 and 4 for the purpose of providing a visual display of actual remaining time.

#### ***Allowable Subject Matter***

4. Claims 4 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The examiner is persuaded by Applicant's remarks in particular, that the prior art of record does not teach or fairly suggest, having smaller increments near both the minimum and maximum settings and larger settings at the midpoint between the maximum and minimum settings in combination with the other recited elements of claims 1 and 9 respectively.

#### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2836

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### ***Prior Art***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Nos. 3,697,770, and 3,653,699 timing systems.

#### ***Communication with the PTO***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Polk whose telephone number is 703-308-6257. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone numbers for

Art Unit: 2836

the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

\*\*\*

March 3, 2003

Sharon Polk

Patent Examiner – Art Unit 2836



HEIDI SIRCUS  
SUPERTECHNOLGY PATENT EXAMINER  
TECHNOLOGY CENTER 2800